

IN THE CLAIMS:

1. (Currently Amended) A method to produce a perforated web material, the method comprising the steps of:

providing a first roller and a second roller, said first roller and said second roller defining a nip;

5 preheating a web material to form a preheated web material, said web material being preheated prior to contacting said first roller and said second roller, said preheated web material having a preheated temperature, said preheated temperature being greater than an ambient temperature;

10 feeding said preheated web material to an entrance of said nip without contacting said second roller;

feeding said preheated web material through said nip;

rotating said first roller and said second roller in opposite directions and pressing said first roller against said second roller during said feeding of said preheated web material, said first roller being provided with protuberances for perforation, said protuberances contacting
15 a surface of said second roller without penetrating said surface of said second roller, wherein said first roller and said second roller rotate with a different peripheral speed to each other.

2. (Currently Amended) A method as claimed in claim 1, wherein at least one of said first roller and second roller is heated, each of said protuberances having a height between 0.2 and 3 mm.

3. (Canceled)

4. (Currently Amended) A method as claimed in claim 1, wherein said first roller rotates at a higher peripheral speed than said second roller, each of said protuberances having a height between 0.5 and 1.2 mm.

5. (Previously Presented) A method as claimed in claim 1, wherein said web material is a nonwoven fabric.

6. (Previously Presented) A method as claimed in claim 5, wherein said web material comprises at least a web of fibers, said web of fibers being bonded to form a nonwoven fabric, said preheating including preheating said nonwoven fabric, said nonwoven fabric being fed into said nip.

7. (Previously Presented) A method as claimed in claim 6, wherein said web is produced and bonded in series upstream of said nip.

8. (Previously Presented) A method as claimed in claim 6, wherein said web material includes at least a web of unbonded fibers, said preheating of said web material comprising feeding said web of unbonded fibers through at least one heating and bonding station to bond said fibers and form a nonwoven fabric, said nonwoven fabric being fed into said nip.

9. (Previously Presented) A method as claimed in claim 8, wherein heating and bonding are performed using an air-through system.

10. (Previously Presented) A method as claimed in claim 6, wherein the nonwoven fabric is fed into said nip with an input speed equal to or lower than the peripheral speed of the first roller.

11. (Previously Presented) A method as claimed in claim 12, wherein said second roller is rotated at a peripheral speed lower than or equal to the peripheral speed of said first roller.

12. (Previously Presented) A method as claimed in claim 10, wherein the feed speed of the nonwoven fabric into said nip is between 90% and 100% of the peripheral speed of the first roller.

13. (Previously Presented) A method as claimed in claim 12, wherein the feed speed of the nonwoven fabric into said nip is between 90% and 110% of the peripheral speed of the second roller.

14. (Previously Presented) A method as claimed in claim 12, wherein the peripheral

speed of the second roller is between 50% and 100% of the peripheral speed of the first roller.

15 - 18. (Canceled)

19. (Previously Presented) A method as claimed in claim 5, wherein two or more webs of fibers are coupled and joined together.

20. (Previously Presented) A method as claimed in claim 19, wherein said web material comprises at least a first web of unbonded fibers and a second web of unbonded fibers, said first web of unbonded fibers and said second web of unbonded fibers being joined in a heating station.

21. (Previously Presented) A method as claimed in claim 19, wherein said web material comprises at least a first web of unbonded fibers and a second web of unbonded fibers, said first web of unbonded fibers and said second web of unbonded being fed to one or more heating and bonding stations for preheating and separately bonding the fibers of the first and of the second web to form two nonwoven fabrics, said two preheated nonwoven fabrics being fed into said nip such that said two preheated nonwoven fabrics are perforated and joined together in said nip.

22. (Previously Presented) A method as claimed in claim 5, wherein said web material

comprises bicomponent fibres.

23. (Previously Presented) A method as claimed in claim 5, wherein a plastic film is combined with said nonwoven fabric or with a web of unconsolidated fibres.

24. (Previously Presented) A method as claimed in claim 1, wherein said web material comprises at least a plastic film.

25 - 34. (Canceled)

35. (Currently Amended) A method to produce a perforated web material, the method comprising the steps of:

providing a first web material and a second web material;

providing a first roller and a second roller, said first roller and said second roller

5 defining a nip;

rotating said first roller at a first speed;

rotating said second roller at a second speed, said first speed being different from said second speed;

preheating said first web material and said second web material to form a preheated

10 first web material and a preheated second web material, wherein said first preheated web material has an at least partially melted first web material portion and said second preheated

web material has an at least partially melted second web material portion, said first web material and said second web material being preheated prior to contacting said first roller and said second roller, said preheated first web material and said second web material having a preheated temperature, said preheated temperature being greater than an ambient temperature;

feeding said preheated web material to a position adjacent to said nip without said preheated web material contacting said second roller;

feeding said preheated first web material and said preheated second web material through said nip with said first roller rotating at said first speed and said second roller rotating at said second speed;

pressing said first roller against said second roller during said feeding of said preheated first web material and said preheated second web material, said first roller rotating in a first roller direction, said second roller rotating in a direction opposite said first roller direction, said first roller comprising a plurality of projections;

heating at least one of said first roller and second roller; and

perforating said preheated first web material and said second web material via said first roller and second roller to form a perforated web material, wherein said projections do not penetrate said second roller during said step of perforating said preheated first web material.

36. (Currently Amended) A method to produce a perforated web material, the method comprising the steps of:

providing at least one heating and bonding station;

producing at least a web of unbonded fibers;

5 feeding said web of unbonded fibers through said at least one heating and bonding station such that said fibers are bonded to form a preheated nonwoven fabric, wherein said preheated nonwoven fabric is at least partially softened via said at least one heating and bonding station, said preheated nonwoven fabric having a preheated temperature, said preheated temperature being greater than an ambient temperature;

10 providing a first roller and a second roller, said first roller and said second roller defining a nip, said first roller and said second roller being located downstream of said at least one heating and bonding station with respect to a travel direction of said preheated nonwoven fabric;

rotating said first roller at a first roller speed;

15 rotating said second roller at a second roller speed, said first roller speed not being equal to said second roller speed;

delivering said preheated nonwoven fabric to an area opposite said nip without said preheated nonwoven fabric contacting said second roller;

20 feeding said preheated nonwoven fabric into said nip with said first roller rotating at said first roller speed and with said second roller rotating at said second roller speed, wherein said preheated nonwoven fabric is preheated prior to contacting said first roller and said second roller, said first roller and said second roller being located at a spaced location from said heating and bonding station; and

pressing said first roller against said second roller during feeding of said nonwoven

25 fabric to form a perforated nonwoven fabric, said first roller rotating in a first roller direction, said second roller rotating in a direction opposite said first roller direction, said first roller comprising one or more projections, wherein said one or more projections do not penetrate a surface of said second roller during pressing said first roller against said second roller.

37. (Currently Amended) A method as claimed in claim 35, wherein said first roller and said second roller apply a pressure in a range of 40 and 220 kg/cm, each of said protuberances having one of a height between 0.2 and 3 mm. and a height between 0.5 and 1.2 mm.

38. (New) A method to produce a perforated web material, the method comprising the steps of:

providing a first roller and a second roller, said first roller and said second roller defining a nip;

5 preheating a web material to form a preheated web material, said web material being preheated prior to contacting said first roller and said second roller, said preheated web material having a preheated temperature, said preheated temperature being greater than an ambient temperature;

feeding said preheated web material through said nip;

10 rotating said first roller and said second roller in opposite directions and pressing said first roller against said second roller during said feeding of said preheated web material, said

first roller being provided with protuberances for perforation, said protuberances contacting a surface of said second roller without penetrating said surface of said second roller, said protuberances having one of a height between 0.2 and 3 mm. and a height between 0.5 and 1.2 mm., wherein said first roller and said second roller rotate with a different peripheral speed to each other.